

Aviation News

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DEC. 9, 1946

Pacts Open Orient, Pacific

U. S. bilateral agreements with India, China, Australia, New Zealand clear way for airline expansion.Page 7

AIA Changes Hinge on Report

Five top aircraft executives wrestle with question of hiring front man for trade association.Page 11

British Dominate French Show

Outstanding participation used 30% of space; French display chiefly models; Fokker twin-jet transportPage 13

Return to Normalcy in Alaska

End of West Coast shipping strike will cause traffic slump, but contract lines are optimistic.Page 18

Airline Dividends Are Ended

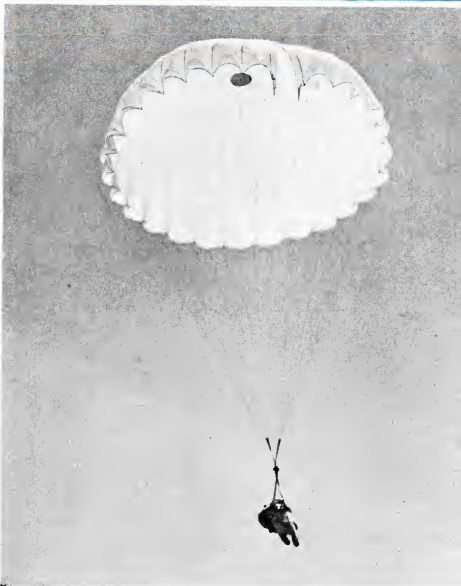
American's six-year record broken; PAA now has longest string of consecutive payments.Page 21

Executive Plane Trend Cited

Beech dealer to stress sales to corporations; tax laws permit depreciation at about 20% a year.Page 22

CAB Expands Feeder Network

4,032 route miles added in Texas, Oklahoma, Kansas; Central, Aviation Enterprises, certificated.Page 27



Steerable Parachute: This parachute, featuring a vent in the panel directly behind the jumper, was invented by Richard H. Hart and has passed initial trials at Wright Field and is now undergoing service testing by the 82nd Airborne Division. The chute keeps the jumper always facing away from the wind, but he can steer it right or left and even turn into the wind to hover for a time over an area. (See story on page 9)

REMOTE HYDRAULIC OPERATION



NOW AVAILABLE FOR THESE STANDARD SELECTOR VALVES

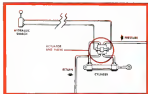
This new Hydraulic Actuator for remote operation can be used on any 1500 or 3000 PSI Bendix-Pacific AN-type 4-way Selector Valve. This combination means greater interchangeability of valves in the complete hydraulic system.

Since the Selector Valve now can be located remotely from the flight deck — close to the actuating cylinder — line losses from

pump to cylinder are reduced. In addition, flight deck plumbing is simplified. Only 1/4" lines are necessary from the cockpit to the Actuator.

Noteworthy features of the new Actuator are instant response, provision for manual operation, minimum weight, minimum space and unflinching reliability.

Detailed specifications of the new Actuator are available on request.



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THE AVIATION NEWS

Washington Observer



FACSIMILE WEATHER MAPS—Bureau of the Budget, always economy minded, concerned in the extreme, is loudly concerned in facsimile presentation of weather maps as the answer to standardization of weather information. But airline meteorological experts point to difficulties being encountered by the Army in establishing a facsimile service and say a workable system may be several years distant. Army is unable to obtain needed personnel and equipment, to complete the set, and results of accuracy in operation are not satisfactory. The airlines will be persuaded to use the military's experienced service, once established. Budget Bureau hopes eventually to eliminate duplicate in drawing weather maps in every city in the country.

ENLISTEES WARY OF AIR RESERVE—Neither Army nor Navy is having enlisted men into the reserve program, despite their best efforts. Lieut. Gen. Smedley Butler, Air Defense Command chief, recently observed in an unpublished speech that the AAF reserve was rapidly becoming a Sunday flying club, without military value unless sufficient non-flying officers and enlisted men were attached to the program to do the work. Both services have all the pilots they need. AAF has 20,000 and the Navy 6,000, all of whom get weekend flying time at government expense. The Navy seeks 30,000 enlisted men specifically, and the Army several times that many.

NO TAX ON RENTAL PLANES—Important to fixed base operators is the notice sent to Aeronautical Training Academy by the Treasury Department clarifying the tax status for aircraft operations. The 15 percent transportation tax is applicable to signposting or charter flights, including hops looking at the island field. But it does not apply to fly-yourself plane rental, or to rental of planes for instruction of student pilots.

SHOWDOWN ON AIR POLICY LOOMS—A showdown between the Administration and the Republican-controlled Congress over international air policy is in prospect. Its first stage will be a jurisdictional dispute. The GOP is prepared to challenge the executive branch's jurisdiction of international air agreements. Nothing approaching a general GOP attack toward the "free freedom" policy itself has developed, but a sampling of GOP senators shows (1) feeling is strong that the discretionary powers now exercised by the White House over international aviation should be curbed, (2) support for the proposal to give Congress final say over bilateral air agreements,

which would rule the form of treaties subject to two-thirds Senate approval.

BREWSTER MAY LOSE POST—Massachusetts' Whitcomb Brewster is fighting. It began when Whitcomb, in a surprise move, informed Senate colleagues that he would claim chairmanship of the powerful interstate and foreign commerce committee in the new Congress. Because he was lined up to become majority leader of the Senate, Whitcomb was expected to gain up a committee chair. Brewster and Reed of Kansas would then have been top claimants for the committee post. However, if Whitcomb wins from Brewster—who has been an active member of Senate Commerce Committee on aviation matters—will lose his place entirely on the new committee under the Senate's policy that no two senators from the same state may serve on the same committee.

NO PUBLIC FUNDS FOR NEW LINES—Chances appear slim that the CAB will grant any subsidies to new carriers which are depending on public funds to get started. The word is passing from applicant to applicant, apparently on good authority, that any carrier has at least two strikes against him in any competition with companies which have sufficient funds of their own to start and continue service. CAB is known to be extremely fearful of contributing to public losses in new company risks.

STEAMSHIP SUBSIDIES STILL EXIST—Even during the most free development years, airline carriers doubt that they will require the amount of government aid in international operation that was handed out to U. S. shipping. Actually, steamship carriers operating foreign services are still beneficiaries of two types of subsidy from the Maritime Commission: (1) a construction subsidy for all ships built in U. S. yards, meant to encourage lower ship-building cost in other countries; (2) as operation subsidy covering such expenses as higher wages which must be met. The former runs from a third to half of the cost of ships, and the operational figure runs about \$20,000,000 annually, according to Maritime Commission officials.

GERMAN TECHNICIANS AVAILABLE—You can expect the War Department to release a number of German and Austrian scientists to private industry, universities and research laboratories soon. Previously, these experts have worked full time on Army projects.

New Bilateral Pacts Open Orient, Pacific to U. S. Airlines

China, India, Australia and New Zealand reach commercial air agreements for new services.

By MERLIN MICKEL

Bilateral U. S. air agreements with Australia and New Zealand followed closely last week on similar pacts with China and India to clear the way diplomatically for expansion of air transport to and from the Orient and South Pacific.

Subject obstacle in the way of U. S. round-the-world routes had been lack of arrangements with India and China. The India agreement was completed before the China Pact, which has been retarded and is to be signed as soon as transference delays have been overcome. The former was signed at New Delhi, the latter at Vellore. Agreements with Australia and New Zealand were approved at Washington.

Conditions Defined—Defining conditions under which air service will operate between the two countries in each instance, the agreements conform in principle to the precedent-establishing British-B U. S. Bermuda agreement.

They permit fifth freedom traffic, provide for determination of rates, settlement of differences, etc., and dispose of other general issues American airlines require.

The agreement with India, Mc-

Graw-Hill World News reports, gives U. S. carriers the right to fly the following routes and make traffic stops in India at the places named:

Route 1 (Pan American)—U. S. through Central Europe and the Near East to Karachi, Delhi and Calcutta, thence to a point in Burma, a point in Siam, a point in Indo-China and beyond to the U. S. **Route 2 (TWA)**—The U. S. through Western Europe, North Africa and the Near East to Bombay, beyond Bombay to Calcutta, a point in Burma, a point in Indo-China, points in China and Japan and beyond to the U. S. over Pacific waters. **Route 3**—Ceylon, Singapore and beyond.

Routes may be operated in both directions, though TWA flights from the west temporarily will enter India at Karachi and proceed thence towards Bombay until quarantine facilities at Bombay are available.

Indian airlines have admitted rights, so far as the U. S. is concerned, to operate routes to the U. S. to be determined later.

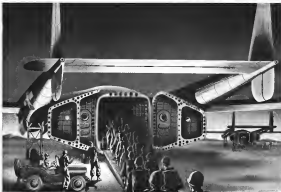
China Pact—The agreement with China gives the U. S. transit and non-traffic stops in China, plus

permission to pickup and discharge international passengers, mail and cargo, at Shanghai, Tientsin and Canton. Chinese airlines may do so at Hiroshima, San Francisco and New York.

U. S. carriers, already certificated to fly to China are Northwest, Pan American and TWA. China designated the government-controlled China National Aviation Corp. and Central Air Transport Corp. Northwest will serve Shanghai and Tientsin, and TWA and PAA at Shanghai and Canton.

The route covered by the agreements with Australia and New Zealand, for which Pan American has been certificated, runs from the Pacific coast to Honolulu, Canton Island, and the Philippines, where the Australian leg will go to New Caledonia and Sydney with an optional extension to Melbourne if that point is designated later. The New Zealand route will branch at the Fiji Islands for Auckland. Both Australias and New Zealand carriers may go on to Vancouver, B. C., from San Francisco if desired. Australia and New Zealand may operate a joint company of their wish, and if it possessed the route will be flown by British Commonwealth Pacific Airlines.

To complete the picture on the routes around the globe, the State Department has yet to effect agreements with Siam and Iraq. The former is expected to present the problem. A two-freedom agreement with Iraq, covering right of transit and non-traffic stops, has been reached and negotiations are



STRIKING FORCE "PACKET"

The Army is dedicated to the fast movement of troops, to lightning-like strikes in offense and the fast deployment of defending forces in key positions.

This principle is implemented by the close alliance between land and air forces. To the Third Air Force (Troop Carrier Command) has gone the job of speeding the transport of airborne battle specialists.

And to the Fairchild Packet has come a major role in the maneuvers that develop these techniques.

The Packet can shift from equipment to equipment with ease. It tows gliders. It carries guns, trucks or light tanks. It transports a complement of 42 airborne infantrymen. It is a jump ship for a big number of paratroopers. And, in a few minutes, it can be transformed into a hospital plane, carrying 24 litter wounded and four attendants.

The first plane designed specifically to carry troops, with abilities typical of Fairchild design and engineering mastery, The Packet proves its versatility as duty with the Third Air Force.

IN COMMERCE, TOO . . .

The Packet can carry cargo on other transport can handle its operations, because it has a built-in cargo door.

The built-in landing and unloading facility and with rear doors open. The Packet is an efficient airplane. Its efficient construction is vitally necessary in the Packet as a freight operator. For details of the Packet as a commercial "freight hauler" write Transport Sales Division.

Fairchild Aircraft

Division of Fairchild Engine & Airplane Corporation, Rochester, Maryland



NEW NAVY JET FIGHTER

Two new types of Chance Vought's new jet-powered Navy fighter, XF9U-1, prospective manufacturer to that company's Janssen P4U Corsair. One photo shows the wing-tip droppable fuel tanks. The XF9U-1 is

powered by a new Westinghouse jet engine and is constructed of Chance Vought's Melba composite material of aluminum alloy with a balsa wood core. (Keep photos)

continuing for the other freedom, covering carriage of international passengers.

The Indo-American agreement was the first negotiated international air agreement made by India since the war, and reflects Indian government policy of importance in future development of international Indian aviation.

Dr. Frederick Tynan, Director General of Civil Aviation in India, could not say when India would begin air service to America. After consolidating internal operations India's first need is extension of external services especially to the Middle East, Malaya and China. Next step will be service to Europe. America will come later.

The British Government had nothing to do with the Indo-American negotiations.

German Scientists Working for AAF

Need aeronautical engineers and research experts revealed at Wright Field jobs.

Disbursing for the first time details of the program under which German scientists have been brought to this country to aid in various experimental and development work, the War Department last week stated that there are now 250 German technicians in the U. S. and that this number will be increased to 1,000 as soon as arrangements can be made.

At Wright Field, 64 German and Austrian scientists are cooperating with Air Materiel Command engineers on rocket, supersonic and propulsion work, among other fields, and some other German technicians are assisting in the V-2 experimental program at White Sands, N. Mex.

While both Britain and Russia have many top German engineers, those at Wright Field who may be identified outside that the AAF are found well in the dreams of German leaders. Among the known scientists at Wright are:

Dr. Alexander Lippisch, designer of the Messerschmitt Me 163 rocket fighter, and a leading authority on flying wings, transient and supersonic aircraft.

Dr. Rudolph Heiser, who was in charge of German wind tunnel development at Peenemunde and Rostock.

Dr. Theodor W. Zabel, former chief of the high speed aerody-



German V-2 Experts Aid AAF. Cooperating with AAF at White Sands, N. M., three of the principal German V-2 scientists, 118 of which were brought to U. S., which were rocket engine being tested for test Dec. 5. Also present is Dr. Martin Schilling, a major contributor to the instrumentation of the V-2. Working on Braun (center), now principal investigator of the rocket, and Dr. Ernst Sternhoff developed V-3 rocket control. (Press Association photo)

namic section at Brunswick and developer of subsonic-transonic flow which measures air flow.

Fritz Dinkelhoff, inventor of the propellant belt injector (Armstrong News, Dec. 2).

Dr. Rudolph Antonson, designer of the B-24-301 engine used in the Focke-Wulf 190 fighter.

Dr. Heinz Schenck, a chief developer of the Junkers J-94 jet engines used in the Me 262 and Arado 234 German jet fighters.

At one of a series of news conferences at Wright Field, Dr. Lippisch stated that he believed it will be about three years before planes will get through the sonic range.

The program on bringing the Germans to this country was begun in Sept., 1945 and all personnel come on a voluntary basis. They are paid up to \$3,150 per year, plus \$4 daily expense allowance. A limited number have been authorized to bring their families from Germany. The families of others live in a specially constructed development in Germany under U. S. military protection because of the first reprisals.

Less than a dozen of the experts have returned to Germany, and more than 30 others whose contracts have expired have voluntarily renewed theirs. Many are studying English and quite a few

have indicated a desire to attain American citizenship.

Ask New Authority To Solve Air Problems

A town meeting technique and a new technical authority to use in directing the efforts of eight government and four private agencies concerned with air traffic and weather problems was recommended at Chicago last week to the national air transport engineering meeting of the Society of Automotive Engineers.

It was one of a variety of solutions for old and new problems in aviation engineering offered by a large grouping of agencies. The suggestion came at one of the last sessions of the three-day meeting, from W. E. Rhoades, chief of Air Transport Association's Air Navigation-Traffic Control division, and George Cowles, chief of Airborne Instrument Laboratory, Inc., Milwaukee, N. Y.

Rhoades and Cowles seek a need for fast action on navigation and traffic control problems, to aid the present navigation and traffic control systems to work safely and efficiently, and a search for a long-range solution to the problem.

Since before the war, they said, planes in use have increased 44 percent while passengers have in-

creased 87 percent, yet the flood of solutions that have been offered to accompanying problems have been handled "like an international puzzle" confining instead of an American town meeting where the democratic process produces prompt majority action for the good of the community."

Vandenberg Leaves Aircraft Shows

Clyde Vandenberg has resigned as director of the National Aircraft Shows to join the Crowell-Collier Publishing Co. as a vice-president. His resignation will become effective Jan. 1.

Thomas Beck relinquished presidency of the company to become chairman of the board. Albert E. Winger succeeds him as president. Eric Presbiter, who succeeded Leon Skiles as public relations director for the National Aircraft Shows has also resigned. He will return to the editorial board of Air Force Magazine.

Other personnel developments:

W. L. Alford, chief of the National Aircraft Shows, has resigned as director of the National Aircraft Shows, and will remain as a director of the National Aircraft Shows, and will remain as a director of the National Aircraft Shows.

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B-29 STORK:

Tailhook to carry the superheavy baby XS-1, AAF's specially equipped B-29 stork at Marine Corps test center between flights during which it carries the XS-1-300. Left flying laboratory aloft for gliding tests. With B-29's wheel tread of 242 ft., XS-1 wing span of 235 ft. presented new pickup problems, even with latter plane lowered in a pit. It is believed a 22,600-lb. heavy shackle is used to hoist XS-1 into cut out section of the B-29's belly.

Production Progress Report

Month	3, 3-A, 4-Place Personnel	Transports	Military	Total	Value
January	5,177*	52**	56	5,385	\$31,248,326
February	6,189*	72**	61	6,322	21,118,218
March	7,874*	100**	135	8,109	29,006,682
April	2,261	48	55	2,364	44,121,334
May	3,461	65	70	3,596	24,659,244
June	3,360	19	60	3,439	32,416,719
July	2,765	36	64	2,865	26,023,824
August	6,454	27	144	6,625	24,461,556
September	4,860	70	129	4,979	26,066,426
October	6,575	27	164	6,766	31,956,516

Totals 39,805 518 1,691 40,914 \$271,467,997

* Two-place aircraft only.

** Includes 3- and 4-place planes.

Backing on Oct. 31 was \$5,145,000, covering 50,000 planes, a substantial drop over Sept. 30 figure of \$5,193,665,300 for 50,000 planes. Greatest decline was in general plane backlog, down to 34,967 planes from 47,419 at the end of September.

Employment in complete aircraft plants in October was 141,692 as against 129,678 in September.

(Totals compiled from "Facts for Industry" published by the Census Bureau. Census Bureau figures on military aircraft divisions differ from those of AAF due to manner of military aircraft and different periods of completion. Figures given above do not include spare parts, engines, equipment, conversions, or research and development contracts.)

they can live and remain conscious for an average of nearly an hour—one risk that the new design type and one-half hour—under conditions simulating those at 40,000 feet.

New Type Parachute Is Service Tested

A new type of parachute, with a wedge-shaped vent in the canopy, has been tested by Wright Field engineers and offers promise in effect of a completely controllable and easily managed parachute. More than 500 of the device are being service tested by the 48th Airborne Division at Fort Bragg, N. C.

Invented by Richard H. Hart, of New Orleans, La., the new device is the same size, 35 ft., as the standard chute and is composed of the same number of panels, 23. However, the panel directly to the rear of the jumper has been split for about half and one-half foot toward the outer Control lines run from the edge of this split to the right and left rear harness rings.

The rear panels of the canopy, backing the split, have been shortened 15 inches. The forward panels accordingly act as a sail, keeping the jumper leaning away from the wind. Because of this, the

spiral is always behind the jumper and he can control the direction of his slide by pulling on the right or left ether that is connected to the spiral. He can even slide into the wind, hovering for a time over a given spot.

Another important gain achieved by the Hart chart is that, because of the sensitive escape of air through the vent, oscillation is greatly reduced.

TWA Plans to Triple Common Stock Shares

Plans to triple TWA's common stock authorization as a step towards additional funds were announced by the company last week following its disclosure that net loss for the third quarter was \$9,245,549.

Of 1,906,000 shares of common stock presently authorized, 965,839 are outstanding. Action to increase the authorization to 3,659,000 shares will be sought Dec. 31 at a meeting of stockholders. Plans for sale of the additional stock have not been completed. President Jack Faye said the step had been contemplated for some time, since substantial funds were being required for postwar expansion.

Goodwill Blamed.—In blaming postwar expansion of Constellation as the main cause of TWA's third quarter loss, (AIRCRAFT NEWS, Dec. 2), Faye said the 14.6 percent increase in operating expenses over the second quarter was mainly due to increased use of less efficient routes, overhead and cost of Constellation modifications, including installation of fuel injection engines. Third quarter operating expenses were \$21,636,634.



WHIRLWAY WHIRLING AWAY

Formerly christened Whirlaway, McDonnell Aircraft Corp.'s twin-engine helicopter constructed for the Navy recently had its first public showing at Lambert Field, St. Louis. Since previously pictured in Aviation News, Sept. 2, the helicopter, designated KUH-1, has had the rotor designers' nicknames. (NYP photo)

With a \$2,943,327 tax credit under carry-back provisions of the federal income tax law, company loss for the first nine months stood at \$4,046,493, equivalent to \$4.92 per share. Third quarter loss per share was \$3.23, second quarter 12¢. Operating revenue of \$17,394,874 for the third quarter was 1 percent under \$18,394,233 for the second quarter.

A trend toward profitable operations for the last half of the year was revealed by the grouping of the Constellations, Faye said. The pilots' strike, which suspended operations Oct. 21 when they were returning to their level before the July proceedings, was described as a

"body blow" that would be reflected in fourth quarter.

TWA Reassured.—With virtually all of its domestic flights and all international flights now back in operation, TWA has been encouraged by a host factor absent at the pre-strike level. This is especially true of flights from Washington, but all domestic operations that have been resumed are reported "annually good." On flights over the Atlantic, west-bound travel has been good and east-bound fair. When the third quarter closed TWA's fleet included 21 Constellations, 11 DC-6s, five Boeing Stratliners and 76 DC-3s.

AIA Changes Hinge On Committee Report

Five top aircraft executives were told questions of hiring from now for trade associations.

By ROBERT H. WOOD

Until a special committee submits its recommendations to the membership the Aircraft Industries Association will continue with its present executive staff and organization.

Since the board of governors' meeting in Wilkes-Barre, Pa., several months ago, a West Coast industry group spearheaded by Lamotte T. Colva, general manager and chairman of Northern Aircraft Co., and J. H. Knudsen, president of North American Aviation, has been urging a return to the pre-war practice of hiring a full-time president or "first man."

Wilkes-Barre Committee.—A committee was named at Wilkes-Barre to prepare recommendations on the matter, but no report was ready when the board of governors met in Cleveland during the National Aircraft Show.

Despite advance indications, the Cleveland meeting failed to cut the AIA budget, retained the public relations program unchanged, reduced to accept the resignation of John E. H. Morgan as executive director, and retained Harry Hotchkiss as legal counsel. Mr. Morgan has consented to stay until future plans are more clearly defined.

A strongly worded telegram from Victor E. Brown, executive vice-president of the AIA, at the time of the Cleveland meeting without thorough study of such proposals. J. E. Curran, Jr., president of Republic Engine & Airplane Corp., made a strong plea that the board refrain from making preposterous organizational and budgetary changes.

No Vote Set.—There was no indication last week as to when the special committee would make its recommendations on a paid president, and reorganization of AIA. The group was thought to be in disagreement. Members are Lamotte Colva, Donald Douglas, Glenn E. Martin, Lawrence Bell, and Victor E. Brown. Mr. Bell was on the West Coast last week.

At the time of the Cleveland meeting, Lt. Gen. Oliver Echols

still was the choice of the several top executives who have been promoting the hiring of a paid president. Last week, however, it became more likely that Gen. Echols would figure prominently in any further investigations which may be made of American Military Government in Germany. Several aircraft executives for some time had pointed out that Gen. Echols would necessarily be involved in any Congressional investigations the Republican Congress may conduct of Government contracts. Echols headed national services for the Army Air Force.

Board Increased.—Meanwhile, a special membership meeting Dec. 11, at the AIA office in Washington will increase the number of board members from 17 to 20. Jack Harner, president of United Aircraft Corp., will replace Eugene Wilson, recently resigned as United vice-chairman and director. E. B. Newell, general manager of Avion Division of General Motors, will be added as a new member. The new board will be headed by governor-at-large will be elected for Mr. Wilson. Any paid president who may be elected will also be a member of the board.

In addition, John Friedlander, president of American Aircraft Corp., and newly elected chairman of the Personal Aircraft Council, replaces William Piper, president of Piper Aircraft Co., the author of PWC's charter.

If the special committee is not ready with its recommendations at this week's board meeting, it appears likely that a special board session may be called at a later date, perhaps in January.

New Air Group

Experience gained during war years has resulted in the association of a group of Los Angeles aircraft executives to form a new industrial public relations agency, Executive Research, Inc.

Key men in the group are Bert W. Hollaway, director, who is manager of publicity and sales promotion for Lockheed Aircraft Corp., and John C. Cox, board chairman, who is president of Metasco Mfg. Co., and Robert D. Rogers, president of ERI, who formerly was a motion picture sales publicity director. Hollaway and Cox will continue to hold present positions with Lockheed and Metasco in addition to activities with ERI.

Others associated with the new venture include W. Hayden Bishop,

Reeves Hits CAA

Sen. John J. W. Reeves, Jr., chairman of the Senate Air Transport Service, criticized the Civil Aeronautics Administration last week for failure to safeguard the industry's financial operations by borrowing readily available Army and Navy CAA equipment.

He told airline executives at the Los Angeles Advertising Club's first postwar Air Transport Association meeting that the Navy has 50 ground control approach sets in operation and 38 more in "mothballs," that Army has 30 sets operated and 180 in storage, and that CAA could have borrowed them had it wished.

He also offered Navy CAA facilities to CAA Administrator T. P. Wright. Reeves said he was told personnel costs would be the great. The Adm. estimated that CAA could operate the 30 Navy sets for a combined cost under \$400,000 per winter.

"It's about time," Reeves urged, "that some of you pay CAA for the equipment you are using something can't be done about your problem."

He blamed "inflation" of airway construction in the Western Pacific and Alaska for the shutdown of Pan American Airways service west of Honolulu, and delay in flying Alaska great circle air connections.

"We haven't reported out there has become marginal. If not actually unprofitable," he asserted. "The airlines should pay CAA and accept some of the cost of their industry and get something done about it."

former Air Technical Service Command civilian administrative officer for management of control, William E. Peters, legal counsel for Metasco, and Raymond F. Lewis, executive vice-president of the Information Division of the Aircraft War Production Council, West Coast.

Nonached Air Terminal

U. S. Aviation Corp., Long Beach, Calif., with assistance from Institute of Air Transport, has received a contract from the Navy to build a new terminal at the Long Beach Naval Air Station, 30 W. 32nd St., N. Y. C., as of Dec. 1.

New Terminal will be used by control carrier members of Institute for ticket booths and baggage handling.



NEW BENDIX FOUR-PLACE 'COPTER

First picture of the new Model J helicopter now being produced at the Stratford, Conn., plant of Bendix Development, Inc. One of six 4-place machines being made by Bendix for ground and air testing and production plans. Model J has Pratt & Whitney 450-hp. engine installed for the counter-rotating rotor blades.

AVIATION CALENDAR

- Dec. 10—International Air Transport Association, 1000 Park Avenue, New York, New York.
- Dec. 10—International Air Transport Association, 1000 Park Avenue, New York, New York.
- Dec. 10—American Airlines and Western Airlines, 1000 Park Avenue, New York, New York.
- Dec. 10—Eastern Airlines, 1000 Park Avenue, New York, New York.
- Dec. 10—Western Airlines, 1000 Park Avenue, New York, New York.
- Dec. 10—Northwest Airlines, 1000 Park Avenue, New York, New York.
- Dec. 10—Southwest Airlines, 1000 Park Avenue, New York, New York.
- Dec. 10—Alaska Airlines, 1000 Park Avenue, New York, New York.
- Dec. 10—Hawaii Airlines, 1000 Park Avenue, New York, New York.
- Dec. 10—Pan American Airways, 1000 Park Avenue, New York, New York.
- Dec. 10—TWA, 1000 Park Avenue, New York, New York.
- Dec. 10—United Airlines, 1000 Park Avenue, New York, New York.
- Dec. 10—Boeing, 1000 Park Avenue, New York, New York.
- Dec. 10—Lockheed, 1000 Park Avenue, New York, New York.
- Dec. 10—Douglas, 1000 Park Avenue, New York, New York.
- Dec. 10—Grumman, 1000 Park Avenue, New York, New York.
- Dec. 10—Cessna, 1000 Park Avenue, New York, New York.
- Dec. 10—Pittsburger, 1000 Park Avenue, New York, New York.
- Dec. 10—Boeing, 1000 Park Avenue, New York, New York.
- Dec. 10—Lockheed, 1000 Park Avenue, New York, New York.
- Dec. 10—Douglas, 1000 Park Avenue, New York, New York.
- Dec. 10—Grumman, 1000 Park Avenue, New York, New York.
- Dec. 10—Cessna, 1000 Park Avenue, New York, New York.
- Dec. 10—Pittsburger, 1000 Park Avenue, New York, New York.

providing an accelerated arrow form, and which are made of wood and supported by two wooden spars going the whole wing length.

The YB-70 will be powered with a June 604 turbo-jet. Engines will be of dual-engine in two sections. The plane has 27.5 ft. wing span, 33.5 ft. length, with 160 sq. ft. of wing surface, and weighs 4,000 lb.

Among the historic craft, the next varied assortment of ideas at the show was contained in the YB-10 lighter plane, of which three have been made by the French government's Aeronautics Aeronaut and 50 in all are on order for the French Air Force. Since the plane operates with internal combustion engines, it can hardly be called revolutionary from the military viewpoint, but it does have a number of interesting points.

The YB-10, which had about 40 hrs. of flight at the time of the show, is powered by two Hispano-Suiza 12-Z motors placed in tandem, before and aft of the pilot's seat. These gave 2,400 hp. at take-off, and 2,700 hp. at normal flying altitude. Top speed clocked at 7,900 meters is 435 mph, and ceiling is 11,900 meters. Flying range with normal loading is reported slightly over 1,000 miles. Only one motor will normally be used in take-off or flight; but the other, it is stated, can be kept warm and immediately ready for use.

Boeing Buys Boeings

Boeing Aircraft Corp. has sold a group of two-engine D-115 transports and navigational trainers to the Brazilian Government which, with spare parts, constitutes the largest single Boeing sale since the end of the war.



Fedden Flat Six: New lightplane engine designed by the British firm, Roy Fedden Ltd., is built compact enough to fit into a wing 16 in. thick. It gives 250 hp. for take-off, and has a fuel injection system.

British Manufacture 'Flat Six' Engine

A 160-hp., flat six-cylinder engine especially for lightplanes submerged completely in the wing has been designed by Roy Fedden, Ltd., a British firm, and will go into production early next year. Conceived with lightplane motor types in mind, where the propeller would be driven by an exhaust shaft, the engine is 14 in. high, 31 in. wide and 34 in. long.

The manufacturer is a newcomer to the British aircraft industry, having founded last year by Sir Roy Fedden, during war years a personal technical adviser to the Minister of Aircraft Production and president of the Royal Aeronautical Society.

An air-cooled, horizontally-opposed four-cycle engine, the "Fedden Flat" has a two-piece aluminum crankcase with cylinders of low expansion silicon alloy and sleeves of machined manganese aluminum alloy high expansion steel. Fuel system employs direct injection rather than carburetion.

Fedden is also developing a small turbine propeller engine which will develop 1,200 hp. Turbine shaft hp. will be 1,500, with the equivalent of an additional 120 hp. furnished by jet thrust. This engine is being built to meet specifications of the Ministry of Supply and is intended for two-engine transports, either military or civilian, and for single-engine military reconnaissance planes.

This engine is also designed for turbo installation, although any part could be submerged in the leading edge. Diameter is 27 in.

The manufacturer estimates that a medium range transport powered by two of the Fedden propellers would operate at 300 to 350 mph, up to 34,000 ft.

Menasco to Begin Giant Engine Test

Menasco Manufacturing Co. expects shortly to begin testing its mammoth gas turbine engines—arguably the most powerful yet constructed in this country—according to the company's annual report. Cutting completely loose from its previous interest in reciprocating engines, Menasco also is working on ram jet propulsion for the AAF.

Only details of the turbine engine furnished by the company are that it will develop "very high thrust (or propulsive horsepower), at low installed weight" and is expected to overcome the problem of high fuel consumption.

AAF contracts for the turbine engine now total \$4,852,708, representing 30 percent of Menasco's \$6,254,270 backlog as of Sept. 15. The backlog figure was up more than one million dollars over the total at the end of the fiscal year, June 30.

During the fiscal year, Menasco showed a loss of \$205,858 on sales of \$5,346,802. This was after an allowance of \$1,281,800 income and some profits taxes credit. Working capital, which had slumped during the year from \$1,603,559 to \$1,312,565, was increased in July to \$2,606,058 by issuance of new securities. A large share of that working capital was tied up in claims for tax refunds which will not be paid until this month, and in the company's inventories of \$2,475,624.

John C. Lee, Menasco president, stated the estimate for profits in the current fiscal year depended upon an increase of productivity. Re-constructing progress in this respect was reported on the company's Electro-Matic portable washing machines, 66,048 of which were delivered in the first eight months of 1946. Menasco has reached its goal, set 9000 time ago, of 10,000 washers a month. It expects sales in 1947 of 300,000.

Menasco is currently producing landing gear for North American's P-51, Lockheed's P-80 and Consolidated, Douglas' AD-1, Republic's Rainbow, and Martin's XBN-45, 202 and 322.



ENGINEERED For Short-Haul Transport

The Cyclone V is designed for efficient ground-coupled, frequent take-off, short haul climb and descent. Its rating of 250 hp. is conservative, making highest reliability under pumping conditions.

In engineering the Cyclone V, Wright anticipated the power need for reliable power in the short-haul transport field. The next great improvement will be for ultra long-range, high speed operation—a development for which Wright is now working in its modern, new research laboratories at Wood Ridge, New Jersey.

Under the high sweep of main line air travel, a network of regional routes is taking form. Air transportation has a potential of 32 million new customers in the cities and towns not yet directly served. Now the opening of this vast market is made practical and profitable with the power of the Cyclone V, an engine designed specifically for the short-haul operator.

POWER FOR AIR PROGRESS

WRIGHT
AERONAUTICAL CORPORATION

Wood-Ridge, N. J.

CLINTON HUBBARD
INCORPORATED

The Birdmen's Perch

by Major Al Williams, ALIAS, "TATTERED MIND TIPS,"
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.

BEAUTY—AND THE BEST

The essence of a gem diamond is to be beautiful.

But before it can perform that function, the rough diamond must be cut into facets. The operating diamond of state-of-the-art—but immediately to become an ability to reflect light... to be beautiful.

Diamond cutters have devised a way to get more beauty out of a stone, now.

They take an already cut stone and cut away from its girdle the dull ridges of the stone. There now can be done of a little more of the diamond's weight has no expense in light reflecting ability that a becomes even more beautiful.

The function of an oil-free lubricant



But before it can perform that function, the crude must be refined. The operating diamond of state-of-the-art, but immediately becomes the ability of the oil-bearing oil to prevent metal-to-metal contact.

Gulf lubricants devised a way to get more lubrication out of an oil, the ALIAS Process.

In effect, it takes an already refined oil

and gives it an extra refining. This extra refining, despite the cost of the oil's weight (carbonaceous and sludge-forming), enables it to perform its lubricating ability that you get extra protection for your engine, when you use Gulfgrade OIL.

Remember the name: Gulfgrade. It's the only lubricant you can get that's ALIAS Processed!

LITTLE KNOWN FACTS DEPT.

We love you, J. R. Marston—pardon, Fred P. J. R. Marston.

Your bookhouse, exposed type construction (a Word couldn't have done a clever job?) is on the way to you, and we will come to the field with you. Fred?

"Operational model of a fully loaded B-32 can be distributed in much as 100 miles by twenty leaving the crew days at full-open position!"

And why do we love you?

Because you sent word with your story!

And remember, I have accepted Fred? and you are a gentleman from Fred P. J. R. Marston. Fred P. J. R. Marston. Fred P. J. R. Marston.

Gulf Oil Corporation and Gulf Refining Company...makers of



Lightplane Boost Seen by Continental

The personal plane industry, a \$100,000,000 business in 1946, may grow still larger in 1947, a survey of next year's engine requirements of principal manufacturers, by Continental Motors Corp. indicates.

C. J. Reese, Continental president, says that the \$100,000,000 figure included a total value of approximately \$80,000,000 for the 32,000 personal planes estimated to be produced in 1946, and \$20,000,000 as the value of service and replacement parts, lubricants and other accessories. Continental Motors, largest single producer of engines for these planes, expects to make 35,000 four- and six-cylinder engines for 1947, this year.

Reese's prediction of increased personal plane sales next year was based on a survey made around Oct. 1 among plane manufacturers using Continental engines. Of their expectations are only 50 percent realized, Reese said, 1947 personal plane production will exceed that in 1946, although 1946 production is approximately nine times greater than that in any previous single year.

Producing more efficient operation in 1947, fewer shortages of materials and parts, and more retail inventories, Reese disclosed that Continental has made manufacturing facilities capable of turning out more than 75,000 engines for lightplanes a year, with addition of major special equipment.

He foresees a trend toward more light- and five-place planes in 1947, along with new two-place models of greater utility and customer appeal. And he also expects the industry to make vigorous studies in the next few months regarding better manufacturing methods, both by factories, and individual distributors and dealers, and place more emphasis on foreign export markets.

Navy Test Site

Retreat of Navy interest in a proposed vacuum isolated guided munition testing ground is indicated in the award of an \$11,500 contract to Leeds, Hill and Jewett, Los Angeles engineering firm, for a preliminary survey of 3000 acres of shore land at Pt. Mugu, just south of Port Huenemea, Cal.

New Products



Carburetor Tuner-Bar

Available for immediate delivery at any of Air Associates' 7 warehouses, a Tuner-Bar for Carburetors was announced recently by Air Associates, Inc., Bendix Airport, Teaneck, N. J.

Use of Air Associates Tuner-Bar not only enables one person to move an engine, but is used to eliminate the danger of damage to wing skins or control surfaces. Off-set and fed steadily and snugly into the axle of steering nose wheel, so that it may be pushed, pulled or turned round at will.

Tuner-Bar is of welded steel construction, measuring 36 in. and weighing 2 1/2 lb. Designed for long service without bending or breaking it is finished in green enamel. Air Associates list price is \$9.95, with a trade discount.

Mobile Test Set

A vacuum instrument which increased field testing operations 500 percent, the Red Star portable vacuum instrument field test set has been designed by the Red Star Products Co., in conjunction with Designers Inc. Industry, Inc. of Cleveland, O.

Unit affords automatic protection to both motor instruments

and instruments under test by a series of relief valves and calibrated orifices automatically unseparated into tests conducted by it.

An outgrowth of the standard AAF test set, with radial address and improvements, the Red Star set functionally divides testing operations into smaller groups, permitting 9 separate tests to be run from one carrier.

The specialized testing superfluous units can be replaced with those of one type, decreasing size of the set.

A self-contained power unit of three small engine permits operation on any lighting circuit. Provision for quick detachable components introduces a speed-up method of simple instrument testing.

Wire Airplane Tire

Designed to carry loads twice as great as today's standard tire, a wire airplane tire was displayed at the National Aviation Show by the United States Rubber Co., 1223 4th Ave., New York 20, N. Y.

Use of the flexible steel wire cord has permitted construction of a smaller surplus tire and to have



a much stronger tire, therefore a greater carrying capacity. Such a tire could be used on the main wheels of superpowered planes which would the amount of space for retracted wheels.

The experimental 4-ply 16-50-40 tire at the aircraft show was designed to carry loads of 28 tons, approximately twice the load carried by the present tire of the same size. A set of four tires of this size probably would permit 16-ton loads, and if it had the same load would be possible with larger size wire tires.

Weight of tire shown is 230 lb. normal air pressure, 250 lb. psi.

There ought to be more Bird Men!
Is not true!

Over and over we've offered you information as Perch Pilots (Don't miss!) for your Little Known Facts About Well Known Planes. And over and over we've said that you Perch must be accompanied by proof!

It's more PROOF!

Take this item:

"A P-51-A, a new one used as a primary trainer for a ship was used in 1946" (all because from the only copy-to-fly place big enough to accommodate it?)

Well, yes... but no proof. So we could not use it and had to be in the way, Cal., stated out on a Perch Pilot's commission. Here's another:

"P-51's appeared from U.S. Navy carriers during the Pacific war?"

Oh...

—B-7's show a speed increase of 120-150 m.p.h. when you turn on the engine?

Trivial?... if true. But how can we tell without proof? We can't. So there are two more commissions that should have gone out this day!

Now tell us your proof!

PILOTS, ATTENTION!

The Sixth Gulf Air Show to Florida is coming up January 2 to January 25. All you need is a plane, the desire, a map, and an appreciation which you can get from Gulf engine dealers.

AND IF YOU'VE GOT US UP (or down) THE GAS AND OIL ARE ON GULF! (RAI)

This is our contribution to the advancement of private aviation. See you in Florida.

AL WILLIAMS



SPECIAL AIR SERVICES

CHARTER NONSCHEDULED INTRASTATE

Return to Normalcy Seen on Alaska Run

End of shipping strike to cause traffic slump but charter lines are optimistic.

A slump in Alaska-based airfreight traffic from record peaks reached during the West Coast maritime strike is in prospect for late or more unscheduled and charter operators who found a bonanza in the eight-week steamship turp.

Surplus vessels will require a number of weeks to clear up the huge backlog of cargo now at Pacific ports destined for the territory, and air traffic will continue to be high during the interim. Nevertheless, the charter airlines are looking to their post-emergency business potential.

Freightliner Cited—Officials at some carriers are concerned over Territorial reaction to airborne cargo in the future in view of protesting during the strike. Alaska merchants handling airfreight cargo often hoisted prices out of proportion to the added cost of air transportation. The result, according to one airline operator, is a "sour taste" in the Alaska community's mouth whenever the word "airfreight" is mentioned.

Confidence that good business on a scale considerably below that of the strike-induced boom will continue between the Pacific Northwest and Alaska remains high, however. There is some feeling that the maritime peace is an uneasy one and that further turp runs be expected.

Moreover, it is widely believed that nonscheduled and charter lines can compete for Seattle-Alaska business on even terms with the certificated operators of Pan American Airways and Northwest Airlines. CAB staff files may be true. Consequently, there is some pressure in the Board for regulations prohibiting carrier and nonscheduled trips between the States and the Territory by Alaska carriers.

During the height of the strike emergency, more than 125,000 lb

of freight weekly were flown from Seattle to Alaska, according to best estimates. Enlisting PAA and Northwest planes, at least 25 DC-3s and DC-4s were operating intra-Territory and nonscheduled to the Territory in November.

Carriers Listed—American Airlines' Contract Air Cargo Division, using DC-4s, accounted for a large slice of the total business. Alaska Airlines flew nearly 125,000 lb of freight northward from Seattle in one week. Other operators included Arnold Air Service, Anchorage; Northern Airlines Seattle, Harte Airways, Anchorage; Golden North Airways, Fairbanks; Ray Peterson Flying Service, Anchorage; Cordova Air Service, Inc., Cordova; and Mt. McKinley Air Freight, Inc., Anchorage.

Airfreight rates for the 1,500-



HELICOPTER ON WATER SAMPLING RUN

Versatility of the helicopter as an industrial aide was demonstrated again during recent experiments by the Western New York Water Co., Buffalo, at its Woodlawn pumping station. A Bell Model 47 is shown landing on the company's instrumentation barge after a trip over Lake Erie, where water samples were obtained in connection with an engineering study. Use of a helicopter enabled the firm to conduct tests in 20 minutes, compared with two hours by boat. Slopes of industrial scale to which helicopters can be put are pointed up last month by Helicopter Air Transport, Inc., Cassada, N. J., Airport, in listing some of the opportunities and corporations for which charter trips have been flown. Utilizing Sikorsky S-51 equipment, HAT made beginning operations in August has made flights for Man's Department Store, the Philadelphia Evening Bulletin, the city of Green City, N. J.; Gordon, Stone & Trach, Seattle Station; WCAE, Winston Steel Co., Campbell Ship Co., Philco Corp., and Hercules Powder Co.

made run between Seattle and Anchorage recently have ranged between 12 and 30 cents a pound, with American Airlines in the low tariff bracket. Principal commodities flown during the strike were meat, fresh fruit, vegetables, butter and eggs, but furniture, rugs, clothing, radios and refrigerators also were ferried.

Other industry developments:

Relay Gen. Lawrence A. Case has ordered an end of operations for Trade Caribbean Airways. Gen. Case said his airline resulted from complete disagreement with policies adopted by other executives of Trade Caribbean.

Shoreline Airlines, Bellingham, B.C., has suspended its Montreal flight due to an equipment change over. Four passenger seats will be replaced by 18-cowbird DC-3s.

American Air Express and **Imperial Co.**, Miami Springs, Fla., has agreed to CAA for a Boston-Seattle route service.

Airlines Two, San Antonio, will continue its newspaper delivery flights whether or not authorized by CAA in the airfreight case.

Hot Springs Airways, Inc., Hot Springs, Ark., operating four round-trip daily between Hot Springs and Little Rock, has been awarded a 30-day temporary operating permit by the Arkansas Public Service Commission.

Universal Airlines, Miami, is thought to be operating flight test service in South America early next year, according to Vice President John J. Connel. Surplus four-engine Boeing

Characteristic ...

Thunderbolt ... Rainbow ... Seabee ... each of superb individual qualities ... put with that unmatchable rugged quality that is the famous P-47 Thunderbolt, head on.

Seabee planes are simple ... safe to use and easy to fly.

But will break no further outgassing ... the phenomenal Republic Thunderbolt ... faster of all ... the air as of atmosphere right ... instantly Republic ... the Rainbow ... a revolutionary transport with landing speeds of over 400 miles per hour ... safe to use of independence ... all instantly Republic ... the Seabee, all metal, four-engine amphibious brings wherever that sticks have held as shown.

It is truly Republic's era ... a heritage of the Road.

REPUBLIC AVIATION CORPORATION, ANN ARBOR, MICH. U. S. A.

REPUBLIC AVIATION

Masters of the Highly Thunderbolt, Thunderjet, Rainbow, Seabee

310s purchased in August would be used between New York and Buenos Aires via Miami and other intermediate stops.

✓ **Westland Airlines, Inc., San Angelo, Tex.** has applied for a CAB certificate to operate scheduled service from New York to Chicago, Houston, San Antonio, and El Paso via a primary route. The route between El Paso and San Antonio Company must meet and operate two DC-3s, according to John W. Hartz, vice president.

CAB Compiles Data On NATS Accident

CAB's hearing on the crash of a Western Air Transportation Service DC-3 during a September enroute Laramie, Wyo., Oct. 17 has failed to disclose evidence of engine or structural failure prior to the accident.

Testimony showed that the plane made several passes at the Laramie field in an attempt to land just prior to the mishap, which occurred shortly before 1 a.m. and resulted in the death of all aboard (10 passengers and three crew). CAB officials said the ceiling fell from 1,000 ft to 500 ft and visibility decreased just as the plane approached Laramie, with conditions worsening steadily during the last few minutes when trying to land. From a 3,000-ft ceiling and 48-mile visibility at 11:30 p.m., weather deteriorated to a 500-ft ceiling and four miles visibility as the plane reached Laramie (prior

to 12:30 a.m.) and to a 200-ft ceiling, one-quarter mile visibility with heavy snow at the time of the accident just before 1 a.m. The plane, outbound from its Oakland, Cal., base, had the ground on level terrain one mile northwest of Laramie support.

CAB safety officials pushed the possibility that the NATS pilot had not received timely and adequate weather reports from Laramie. The plane had sufficient fuel aboard in excess to Sheridan, Wyo., 540 miles away, where the weather was clear. It was questionable, however, whether the plane crew had been informed of Sheridan's conditions in time to change plans and land at that point.

NATS officials and the company had started uncoordinated and charter transportation service with two DC-3s in Apr. 24, 1946, and that a third DC-3 was purchased in August. From Aug. 30 to Oct. 17, the day of the crash, 24,793 fare 14,424.90 cargo pounds loaded; 1,623.50 passenger miles; and 390,400 revenue plane miles.

Western Charter Flight Scheduled for South Africa

Sea Shipping Co., which operates a fleet of cargo vessels between New York and South Africa,

has chartered a Waterman Airlines DC-4 for a flight from Johannesburg to Johannesburg next month. The plane is to leave New York Dec. 12, arriving at Johannesburg Dec. 18 after stops at Trinidad, Natal, Ascension Island and Welverly Bay, Southwest Africa. A return flight will depart Dec. 18.

Officials of the steamship firm state that the movement and development of U. S. commerce with South Africa is being hampered primarily by the inability of transportation representatives to obtain either surface or air transportation between the two points.

Other charter flights to South Africa will be made if the transportation shippers continue Sea Shipping Co. was formed as a New York-Johannesburg air route in CAB's South Atlantic division, which designated Pan American Airways to operate the service on that route.

Transair Invests In Cuban Carrier

Interests associated with Transair, Inc., New York charter carrier, have made a substantial investment in Represa, S. de Intercontinental and have sold the Cuban line's planes and other equipment required for large-scale expansion of its inter-island and international operations.

W. Dearing Howe and Hugh M. Fenwick, president and vice-president, respectively, of Transair, head the group which has purchased 173,900 shares of Represa common stock and, at the same time, has transferred to it four DC-4s, plus registered certificates for \$150,000 in five-year 4 percent convertible notes. The planes will be used on Represa's Havana-Miami run and in the extension of its routes to Caribbean points and Mexico City.

The Howe-Fenwick group, which will take over Represa's management following resignation of incumbent officials, also has indicated its intention to acquire the 25 percent interest of Pan American Airways in Compañia Cubana de Aviación, the competing Cuban airline, under expiration of Represa's option on Jan. 25. Represa will file applications both in the U. S. and Canada for certification of a Havana-Miami-New York-Montreal route.

American Airlines' unbroken six-year record of consecutive dividend payments on common stock now moves up to first place with the longest string of unbroken dividend payments among the air carriers. In 1943, the company paid \$1.00 per share on its old common stock. The same amount was paid annually through 1944. During the last two years, 25 cents per share on the present stock, equivalent to 94 cents on the old shares, have been paid annually. This six-year chain of consecutive dividend payments could have been extended to eleven years—back to 1935—if the company had maintained disbursements during 1939 and 1940. During 1939, Pan American paid the equivalent of 44 cents per share on the present stock, and that represented the first cash disbursement to stockholders. Payments were continued in 1937 and 1938 but omitted in the following two years.

✓ **Delta Comment**—Another consistent dividend payer among the air carriers is Delta Air Lines, Inc. This company has a conservative chain of payments starting in 1942, when the equivalent of 33 1/3 cents per share on the present common stock was paid. The same amount was paid in the two subsequent years. The equivalent of 50 cents per share on the present stock was disbursed each year for 1945 and 1946. Delta, however, made its first cash payment to stockholders in 1936 and continued regularly thru 1940. Were it not for the omitted payment during 1941, Delta would now have a nine-year unbroken record of payments.

✓ **Table Shows Parity**—The accompanying table illustrates the parity of old cash dividend payments to arrive stockholders. All American Airlines, American Overseas, Colonial, Mid-Continent, National, and Northwest have yet to pay their first cash dividend. TWA and Western must go back to 1936 for their first cash disbursement to stockholders. In both instances 25 cents per share.

Until such time as carriers improve and the need for further expansion stimulates any material increase from the present low level of cash dividends to be paid by the airlines against utility, it and when earnings do return to substantial measure it is probable that the companies will not fall below previous positions of retaining the bulk of such cash.

Under apparent current U. S. Treasury Department policy corporations are being encouraged to pay at least 75 percent of their net earnings in the form of cash dividends in order to avoid additional taxation.

FINANCIAL

Airline Dividends Are Casualty of Post-war Finance Problems

American ends six-year record of consecutive dividend payments on common stock; Pan American now has longest string of payments stretching back to 1941.

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CASH DIVIDEND RECORD
U. S. CERTIFICATED AIR CARRIERS—DOMESTIC AND FOREIGN
(Paid Per Common Share)

Carrier	1941*	1942	1943	1944	1945	1946	1947
All American	94	94	94	94	94	94	94
American Overseas	94	94	94	94	94	94	94
Boeing	94	94	94	94	94	94	94
Chase & Se.	94	94	94	94	94	94	94
Continental	94	94	94	94	94	94	94
Delta	94	94	94	94	94	94	94
Mid-Continent	94	94	94	94	94	94	94
National	94	94	94	94	94	94	94
Northeast	94	94	94	94	94	94	94
Northwest	94	94	94	94	94	94	94
Pan American	94	94	94	94	94	94	94
TWA	94	94	94	94	94	94	94
Western	94	94	94	94	94	94	94

*All payments adjusted to reflect stock splits-up and stock dividends.
*Paid or continued to be paid during 1946



AIRFREIGHT HEARING RICHES

With exhibits piled on the table before them, participants in the airfreight hearing at Port Ward are shown in an off-the-record discussion during a brief recess. Seated are CAB Executive William F. Church (left) and R. Vernon Radcliffe. Standing left to right are—L. Walker Boyce, president of Low Star Air Corps; James J. Edwards, president of Air Dispatch, Inc.; (flight forwarder); Arnie J. Gilman, Jr., executive vice-president of Low Star; and W. E. Miller, chief lawyer attorney. The airfreight hearing was shifted to Washington last week, and sessions are expected to continue until Christmas.

FIXED BASE OPERATIONS

AIRPORTS

PRIVATE FLYING

SCHOOLS

Growing Trend to Executive Planes Cited by Distributor

Tax laws permit company-owned planes to be depreciated at about 20% a year; Beech regional dealer gears organization to stress sales to corporations.

By ALEXANDER MCBURLEY

A growing trend toward business corporations ownership of airplanes for executive transportation indicates that the executive transport is rapidly becoming an indispensable adjunct of American business, and may soon take its place in utility alongside company-owned automobiles, and company business machines in the more progressive business operations.

Samuel Nesbitt, president of Atlantic Aviation Corp., Teterboro, N. J. Air Terminal, regional distributor for Beech airplanes is keeping his sales and service organization at his main base, and has three subordinate operations at Wilmington, Baltimore and Boston, primarily for business plane sales. Since the twin-engine level, the six are probably more widely used for executive travel than any other single airplane (unless it be the surplus twin-engine Cessna) and now the new four-engine Beech Bonanza 35 is also gaining prominence at the executive market, this is a quite logical plan of action.

Corporation Market — Nesbitt points out that there are still tens of thousands of corporations who could own airplanes but who are hesitant "because of cost objections, or objections from families of some of the executives who would fly, or prejudice on the part of the executive themselves."

"One little warning," Nesbitt says, "can often quash the sale of an airplane to a large corporation. The executive himself can be sold by emphasizing insurance statistics which prove that it is no more risky to go by air in a private jet equipped and operated twin-engine airplane than by any other form of transportation."

The cost aspect is becoming less

and less of an objection however, because present tax laws permit a company-owned airplane to be depreciated like any other piece of company equipment. And the cost of operation, which is still high, can also be charged off as a legitimate business expense.

At Nesbitt's main Teterboro base he has a large modern hangar shop and executive offices. Facilities include a reception room and conference room open to the use of business men who may fly in the

hazards season of the airport. Besides his Beech franchise, Nesbitt is a Beech Aircraft Radio master dealer, and distributor for 21 B. and Beech products. He has mechanics trained in Beech and Beech factory methods on his staff although he is also

equipped for maintenance and overhaul work on other planes and radio equipment. His distributor territory includes southern New York, New Jersey, and the New England States.

No facilities include a large stockroom of aircraft parts and accessories, a radio bench serving from an electrically isolated power source, a machine shop for metal work and welding, and a station wagon to provide ground transportation between Teterboro and downtown New York.

October shipments of the two leading lightplane producers, Piper and Aeronca, both topped the 1,000-plane mark, the first time any personal aircraft manufacturer has accomplished this feat, the Aeronca Industries Association disclosed last week. The 13 major manufacturers reporting showed a total of 4,833 shipments, the highest production level yet reached by the industry.

Despite leveling off and elimination of duplicating orders, the Association said, were cases of a drop in the unfilled orders reported by 10 of the 13 companies, which make reports on ship from 25,000 orders to 25,000.

Piper shipped 1,335 planes with a value of \$5,013,800 as against 1,227, with a \$4,301,000 value in September. Aeronca shipped 1,066 planes with a \$1,610,000 value in October, as against 973 with a \$1,201,000 value in September. Piper landed 11,106 unfilled orders with \$23,533,000 value, while Aeronca landed 3,452 unfilled orders with \$4,810,000 value.

The October peak reached by Piper and Aeronca and the industry as a whole are probably the high point of 1946 production which is expected to show a seasonal decline for November, December and the early months of 1947.

Increases in shipments over the previous month, were also shown by Cessna, 426 planes valued at \$1,463,800, Engineering & Research Corp. (Kroger), 360 planes valued at \$1,068,000, Taylorcraft, 445 planes with value not listed, Stinson, 306 planes valued at \$224,000, Beechcraft, 78 planes valued at \$323,800, Republic, 50 planes valued at \$167,000, and North American, 25 planes valued at \$129,000.

Companies showing decreases in

shipment were: Beech, 21 planes with \$2,353,900 value as against 31 planes with \$4,706,000 value in September; Globe, 101 planes with \$633,900 value as against 306 planes with \$604,800 value in September; Luscombe, 173 planes with \$469,800 value as against 342 planes with \$637,800 value in September; Texas Engineering & Manufacturing Co. (including Panchard 7-24s and Globe Swifts) 131 planes valued at \$336,000 as against 164 planes valued at \$525,000 in September.

Safety Awards to 17 Airports in Northeast

Certificates of high operating practice have been awarded to 17 airports in northeastern states by the Air Safety Division of the National Aeronautics Association.

The awards are the first of a series to be granted to airports which are conforming to standards of safety and service set by the division, on recommendation of its advisory council, headed by Jesse Lederer, NAA vice-president for Air Safety. It is planned to complete the series of awards to airports throughout the United States by Dec. 16.

The northeast airports receiving the first awards include Braintree Field, Connecticut Aviation Corp., Hartford, Conn.; Bernhardt Airport, East Hartford, Conn.; Municipal Airport, North Avon-

don Co., Portland, Me.; Plainfield (Cunn.) Airport, Bradstreet (Conn.) Airport; Ashford-Lewisville (Mr.) Airport; Aviation Country Club, Country Club Flying Service, Hicksville, N. Y.; Hylan Airport, Haverhill, N. Y.; Cheating Co. Airport, Haverhill, N. Y.; Rochester (N. Y.) Airport; Lake Success Airport, Aviation School & Service, Inc., Haverhill, N. Y.; Marine Creek Airport, Inc., Belvidere, N. J.; Country Club Airport, Beacon Flying Service, Inc., Glen Cove, N. Y.; Cuyler City Airport, Astoria Flying Service, Astoria, N. Y.; Seneca Falls (N. Y.) Airport, Buffalo Airport, Grandview, N. Y., and Springfield (N. Y.) Airport.

New Stinson Pricecuts

Previous \$19,450 and \$17,450 were placed on the four-place 1947 Stinson Voyager 100 and the Stinson Flying Station Wagon, last month at the National Aeronautics Association show, at Cleveland. Both prices are lower than the Stinson Flying Station Airport, Wayne, Mich. The two planes are basically the same, but the Flying Station Wagon has additional utility as a light cargo carrier, because of removable seats which make it possible to carry a pilot and 400 lb. cargo, or a pilot, passenger and 500 lb. Conversion from 6-place passenger plane to cargo carrier takes less than five minutes. The new prices were announced by William H. Kleske.

Language at Teterboro: Luscombe reception room and pilot's lounge at the base operated by Atlantic Aviation Corp., at Teterboro (N. J.) Air Terminal is styled from a private jet for the taste of business aviation who are the operator's best customers. Receptionist handles flight information and manages for passengers and pilots. Friends and relatives of passengers are welcomed. A courtesy station wagon takes plane users to downtown New York.



equipped for maintenance and overhaul work on other planes and radio equipment. His distributor territory includes southern New York, New Jersey, and the New England States.

No facilities include a large stockroom of aircraft parts and accessories, a radio bench serving from an electrically isolated power source, a machine shop for metal work and welding, and a station wagon to provide ground transportation between Teterboro and downtown New York.

Piper and Aeronca Hit 1,000 Plane Mark

October shipments of the two leading lightplane producers, Piper and Aeronca, both topped the 1,000-plane mark, the first time any personal aircraft manufacturer has accomplished this feat, the Aeronca Industries Association disclosed last week. The 13 major manufacturers reporting showed a total of 4,833 shipments, the highest production level yet reached by the industry.

Despite leveling off and elimination of duplicating orders, the Association said, were cases of a drop in the unfilled orders reported by 10 of the 13 companies, which make reports on ship from 25,000 orders to 25,000.

Piper shipped 1,335 planes with a value of \$5,013,800 as against 1,227, with a \$4,301,000 value in September. Aeronca shipped 1,066 planes with a \$1,610,000 value in October, as against 973 with a \$1,201,000 value in September. Piper landed 11,106 unfilled orders with \$23,533,000 value, while Aeronca landed 3,452 unfilled orders with \$4,810,000 value.

The October peak reached by Piper and Aeronca and the industry as a whole are probably the high point of 1946 production which is expected to show a seasonal decline for November, December and the early months of 1947.

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AERONCA SALES MEETING:

Leo Smith, executive vice-president, Aeronca Aircraft Corp., center, was a key figure at the recent Aeronca Distribution conference, at Cleveland. Others shown, left to right: V. C. Ritz, Aeronca director of manufacturing; Alfred B. Brown, Metropolitan New York distributor; R. D. Swerlock, vice-president, Arapago, Inc., handling Aeronca foreign sales; and R. L. Davidson, Aeronca general sales manager.

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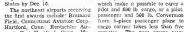
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sales manager, Stinson Division, Consolidated-Vultee Aircraft Corp., at a Cleveland meeting of Stinson dealers and distributors.

Airport, Franchises Sold at Fond du Lac

Sale of the Fond du Lac (Wis.) airport and the distributor franchises for Aeromac and Globe Swift airplanes in Wisconsin and upper Michigan, to Aviation Industries, Inc., Milwaukee, has been made by Anderson Air Activities, Milwaukee, for \$400,000 including inventory and equipment at the airport.

Myron H. Johns and Frank X. Rowell, partners in Aviation Industries, Inc., have operated Milwaukee's north side Brown Deer airport since April 1946, and are conducting a GI flight training program there. They plan to conduct a similar GI program at Fond du Lac. Their new distributor franchises include a network of 30 Aeromacs and nine Globe dealers in the two states, and they will also hold the Fond du Lac dealership for the Republic Seabee amphibian and Beech Bonanza.

Other expansion projects of

Aviation Industries, Inc., include bids for operation of Midland Airstrip in downtown Milwaukee now up for re-leasing and for operation of the new Ches. Bay Rock County airport between Janesville and Beloit. Wis. Aviation Industries also has asked authorization to operate commuter service between Chicago's proposed North-city life helicopter strip and the Midland strip, and to operate helicopter airmail shuttle service between General Mitchell Field Milwaukee, existing postal stations and the main postoffice in the strip, three blocks from the postoffice.

Anderson Air Activities, largest fixed base operation in the state, operated by Myron E. Anderson, will continue at General Mitchell Field, Milwaukee, with its Ecouette Beech and Republic distributorships.

Aeromac Closes Dayton Plant in Economy Move

Aeromac Aircraft Corp. last week closed its No. 3 assembly plant at Dayton Municipal Airport, Xenia, Ohio, and centralized manufacturing at the main Mid-

dland, Ohio, plant. The lease on two former modification center hangars at the Dayton airport continues until 1948, and they may be used again for production if needed. Meanwhile Aeromacs will continue to use the old tower at the Dayton airport for mail shipments of planes, flown from Midland.

Quartet to Get Airport Awards

Shank, Krizer, Low and Langstaff are trophy winners in special categories.

Winners of the Hare airport awards for 1946 for outstanding contributions in development of landing facilities are Robert F. Shank, Indianapolis, Ind.; Stanley Krizer, Amarillo, Texas; Mervyn F. Low, Washington, D. C.; and Douglas O. Langstaff, New Orleans, La., the National Aeronautic Association announced today.

The winners, each in a special category, will receive plaques donated by Andrew J. Hare next week at the Chicago convention of the Aviation Association and International Association



CAA DEALER'S TAG

Remembered here is a sample of the new CAA simplified "Dealer's tag" which may be used interchangeably on new planes until they are purchased.

Langstaff of Midland—Langstaff

member of Midland International Airport, was selected in the International Airline Terminal category. Low, manager of Washington National Airport, in the domestic terminal category. While these awards were presented to be based primarily on good management, the naming of Krizer and Shank recognize a particular kind of initiative and pioneering.

Krizer, manager of Woodruff Airport which was selected in the category of fields serving non-scheduled flying only. Located 19 minutes away from the center of America, it represents an investment of \$150,000, all private capital. It has two 400 ft. by 3,000 ft. taxi landing strips. A sprinkler system was built into the field while it was being constructed so that the grass is always fresh.

Krizer's field has one main hangar with a landing housing aircraft supplies and equipment. In addition, it has 40 individual hangars arranged in four bays of 10 units each. A life master will be added.

Shank, owner of Shank Airport, three miles from Indianapolis, was the award in the category of fields serving scheduled flying only. He began as an airplane salesman in New York for Glenn Curtiss in 1928, and joined in a Curtiss partner the following year. He held several records of early "flying light" and was a member of the first Curtiss exhibition flying team. In

1928, he was a member of the first Curtiss exhibition flying team.

A sad, adjacent field, Shank Airport covers 160 acres with 180 acres additional available for expansion. Included in the 160 acres are hangars 100 ft. by 200 ft., 100 ft. by 100 ft., and 100 ft. by 100 ft. The hangars have already been used for the construction of a main hangar. At the back of the lot, and adjacent to the airport, will be the owner's individual hangar. Shank has a 25-plane hangar on the field, sales room and service shop. Gulf Oil is installing fueling facilities. Shank leases all space on either a straight rent, or on a percentage of sales basis. The only business he operates himself is the leasing of space in the hangar.

Beckwith Havens Heads Embry-Riddle Sales

Appointment of Beckwith Havens, a flyer since 1911, as sales director of Embry-Riddle Co. of Miami and North American, Inc., has been announced. Havens will supervise the Florida firm's distribution and sales of North American Navies. He recently completed a tour of duty with the Navy as lieutenant commander, and is a veteran of several wars. He was in the World War I as an airplane salesman in New York for Glenn Curtiss in 1928, and joined in a Curtiss partner the following year. He held several records of early "flying light" and was a member of the first Curtiss exhibition flying team. In



later years prior to World War II, he was a flying instructor at Roosevelt Field, L. I. He resides in New York and commutes to Florida several times monthly.

Regional Plan

Regional Plan Association for New York-New Jersey-Connecticut, last week announced recommendations for locations eight new secondary transport airports, and 22 local fields. Secondary fields would be located at Woodbridge, Springfield, Bloomfield, and Dover, N. J.; Yonkers, Rutherford Creek, the Bronx, and near the New York, Rockland County, N. Y., and Norton Heights, Dorset, Conn. Of the local fields New Jersey would get 12, New York, 26, and Connecticut, 3.

Rod Wendels, president of the association, and he was requesting reconsideration for a unified regional airport system under a tri-state agency, which might operate the airport, and advise CAA in allocation of federal airport funds. A previous report had asked for three or four major airports, and eight supplementary airports in the area. The report estimated the need for facilities for 25,000 private planes in the area within 10 years.

Seabee Price \$6,000

Patrons including Republic Aviation Corp., are looking for the price of the four plane 215 hp. Seabee jumps to \$4,000 from the previous price tag of \$1,600, since partly increased parts, and partly changes in addition of equipment. The price was the second for the Seabee, which originally cost \$1,600.

More than 90 "important" new price increases have been made to improve the plane's quality, safety and performance, the company reports. The new price includes as standard equipment the convertible and removable full-throttle propeller, and full cross country fuel instrumentation. This is a new two-trail Seabee in addition of more complete equipment with plane 1. In price, already noted on several other planes, nearly the high-performance four-place Seabee Bonanza which will still be under price \$3,500, including this equipment. More complete fuel and equipment cost increases up to 50 percent, and delays from failure to produce tools and dies, were cited.



RECIPIENT PORTRAITS

Four recipients of 11 personal plane companies, received original portraits which first appeared in the "Beard Radio Handbook of Personal Aviation," at a recent ceremony at the National Airport, Washington, D.C. From left to right: Richard S. Beattie, vice-president, Fairchild Engine & Airplane Corp.; Gordon Skopier, personal plane sales manager, representing Republic Aviation Corp.; President Alfred Marston; John Friedlander, president, Aeromac Aircraft Corp.; C. Francis Auer, vice-president, Aero Aircraft Corp.; William A. Marx, director, Aviation Corp.; Staff executive, and George M. Erick, Beard Radio personal

aviation sales manager, who together made the presentations. William T. Piper, president, Piper Aircraft Corp.; Roger W. Kohn, representing LeRoy Greenstein, president, Greenstein Aircraft & Engineering Corp.; Fred E. Walick, vice-president, Engineering & Research Corp.; Leopold H. P. Klotz, president, LeRoy Aircraft Corp.; Doris F. Klotz, assistant sales manager, representing Daniel L. Wallace, president, Cema Aircraft Corp.; James C. Wilcox, New York City Cema distributor, formerly sales manager, Stinson Division, Consolidated-Vultee Aircraft Corp.; and Walter H. Reed, president, Beech Aircraft Corp.



JET THRUST MUFFLER:

New improved Datsun lightplane engine silencer offers another solution to lightplane noise problems, is designed to provide jet thrust assistance to offset any drag. The 22 hp model, weighing 2½ lb., is shown installed on Topcraft's, with G. E. Davis, head of Davis Aircraft Silencer Co., Compton (Calif.), Airport Silencer already has FAA approval. Davis claims his patented design has completely eliminated drag pressure found in many mufflers. Although principle has been tested successfully with much more powerful engines, production currently will be confined to low-horsepower type silencers. Prices and distribution plans are to be announced. (Sylvester photo)

Southwest Airmotive To Handle Hamilton

Southwest Airmotive Co., Love Field, Dallas, Texas, has been appointed a distributor for Hamilton Standard Propeller Division, United Aircraft Corp., providing full propeller repair and overhaul service, and stocking a full inventory of Hamilton Standard parts and accessories for distribution to plane owners and operators in the southwest.

SAC, also, recently leased from the city of Dallas, 21 acres of concrete aircraft parking area at Love Field, including 6½ acres near the SAC sales building, and 14½ acres at the field's northwest end. Incoming planes of all sizes pay a \$5 parking and tie-down charge and are tied at the parking area by gas track, line service crew, and security car.

The company, one of the largest fixed base operators in its section, recently added to its equipment a two-place Cessna 180 plane for sales trips, a business car and six craft cleaning wagon built in its

Briefing For Dealers and Distributors

Moore Sales Effort—Aircraft dealers, distributors and their organizations currently are making a greater sales effort than the airline business has ever known. Tossed from a busy-hand world of ten buyers for every airplane, into the cold gray reality of a buyers' market, the real businessmen among the dealers are now working at the selling job. As a result crowded plane inventories on many fields are disappearing. Manufacturers' production cutbacks are reflected in landing shipments, and the best merchandise is beginning to feel on solid ground again.

Weikhaar Comments—Wayne Weikhaar, secretary of Aeronautical Training Society, says the distributors with extensive dealer organizations are, as a general rule, in better shape than a plane inventory standpoint (i.e., they have moved some places) than the distributors who relied on merchandising from a few distributor-owned bases at large cities. Wayne, who is in a spot to judge the pulse of the bigger operators better than anyone we know, says a benefit which could develop out of the slump may be reasonable compensation for each man in the distribution chain, even the distributor, who has been getting a cut so small, in some cases that he takes on the work of his own dealer, to provide additional margin of profit. Industry opinion, as reflected in AFS and elsewhere, is strong for eventual complete separation of distributor and dealer functions, which would be possible only when the distributor was making a reasonable margin.

New Sales Approach—Kalamazoo plans for selling the flyers who visit New York on the use of the Duneson-Flights Airport on Staten Island by a "personal service" approach have been declined by Richard Gere, president of the Richmond Flying Service, operator of the field. Gere expects to run a five airplane fleet from his airport to Governor Edmund River airplane anchorage at Wall and 23rd St. next spring, making the trip in 35 minutes. Until he can start the seasonal shuttle trip transportation will be provided between the field and downtown Manhattan by station wagon and jeep. Other personal services projected include a downtown New York office with secretary and phone available for the party on far-off visitors and a hotel and theater ticket service. The intensive servicing of each plane when it arrives is stressed at the field. Gase hopes to make the Staten Island field No. 1 in a chain of Richmond Flying Service airports scattered over the country, all as nearly identical in appearance as possible with similar runway layouts, buildings, landscaping, etc. so that the flyer in the air can identify any of the chain immediately as an RFS field.

Equal Opportunity—The small businessmen in the small town, is given an equal opportunity in the field of transportation with his colleagues in the big city for the first time by use of the small executive plane (4-5 passenger single-engine type). It's a sales argument that the small town airplane dealers shouldn't forget, and we've seen Jack Galy, Buck vice-president and general manager, from whom we received it, won't mind if we put it on. "The air comes," says Galy. "It probably isn't accessible in the town to the little town in the big town because small town businessmen places are not so far from their airports." In the past, all facilities of travel naturally gravitated to the large cities where the principal market lay, while the little towns had neither adequate railroads nor highways. The Buck Business, and other planes of this general type, are likely to be the "Great Equalizer" for business transportation all over the world, as Westerners once called the Cold Sea-Shoaler the "Great Equalizer," because it made the little man as powerful as the big one in a fight. —Alexander McHenry

own shops, a new station wagon and a coupe for customer service. On order is more than \$25,000 worth of new Weikhaar tools and another plane for sales department use.

Continuation, to start about Jan. 1 on a large new hangar, which a new employee lounge and restaurant on the second floor of the propeller shop is under construction.

TRANSPORT

CAB Decision Expands Feeder Network to 11,728 Miles

4,692 route miles added in Texas, Oklahoma and Kansas; Central Airlines of Oklahoma City and Aviation Enterprises, Inc., of Houston are certificated.

By CHARLES L. ADAMS

The nation's fast-expanding feeder network grew to 11,728 route miles and now operates during the past fortnight when CAB authorized additional feeder services comprising 4,692 miles in Texas, Oklahoma and Kansas.

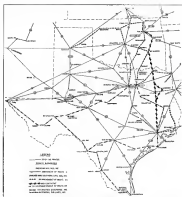
In deciding the fifth of 31 area route cases, the Board certificated two new operators, Central Airlines, Inc., Oklahoma City, and Aviation Enterprises, Inc., Houston, Tex., for three years. At the same time, Pioneer Air Lines' existing feeder system was more than doubled. Mid-Continent was certificated for three years between Tulsa and Houston, and Amarillo and Chicago & Southern were given new intermediate points.

More Mileage—Feeder route mileage granted Central, Aviation Enterprises and Pioneer in the Texas-Oklahoma area considerably exceeded local service authorizations in the Rocky Mountain, Florida, West Coast and New England and paved way, all of which have been decided since March. A decision in the south area proceeding as due "very shortly," according to CAB Vice Chairman Oswald Ryan.

The Board's Texas-Oklahoma decision, signed by Chairman James M. Lindsay and Members Herber Brecht and Josh Lee, was accompanied by a concurring and dissenting opinion by Member Clarence M. Young, who criticized against establishment of too many local airports at the time.

Young emphasized the present objective should be certification of a limited experimental network which may serve as a guide for future expansion. "We are not justified in filling all the vacuums which may now exist (and) we have some assurances that (local) service can find a permanent place in an economically sound and cen-

trally self-sufficient national air network," Young declared. **Young Dissents**—There is reason to doubt, the Board member commented, that some of the local sys-



New Texas-Oklahoma Feeder Route: CAB's A/N area route case decided since March of this year has resulted in certifications of two new feederlines and important extensions of the present system of Mid-Continent Airlines and Pioneer Airlines. Map shows Central Airlines' new operation in north Texas, Oklahoma and Kansas (AM 32); Avian Enterprises' new system in central and south Texas (AM 32); Mid-Continent's extension from Tulsa to Houston (AM 40); and Pioneer's AM 44 extension between Dallas and Midland-Odessa, Tex., and between Houston and Dallas. America's new AM 4 intermediate point, Midland-Odessa, and Chicago and Southern's new AM 33 intermediate point, Beaumont-Port Arthur, Tex., also are shown.

tems which have been certificated are large enough to form the basis for operations which will effectively meet the needs of the public with expenditures of economic value. Four of the ten feeder now authorized (Oklahoma, West Coast, Pioneer and Wiggins) have less than 1,000 route miles.

Young suggested that in order to have a fair test of the adaptability of local and feeder service CAB should certificate somewhat larger individual systems and fewer operators in the remaining six area domains.

By certificating Avian Enterprises for 1,800 route miles in central and south Texas, CAB set up the nation's largest feeder operation. The Houston company's routes exceed by nearly 300 miles the Rocky Mountain system of

Summit Airways, previously the largest line.

Routes Listed—Routes granted Aviation Enterprise include Houston-Dallas, Houston-San Antonio, San Antonio-El Paso, Brownsville-Eagle Pass, and Dallas-Fort Stockton. Formerly a partnership organized in pilot training, charter, maintenance and sales activity, the company is now headed by H. E. McKnight, president; J. M. West, first vice-president; L. D. McKnight, second vice-president; and James V. Alford, third vice-president.

Central was certificated for 1,273 route miles between Oklahoma City and Wichita, Kern, Amarillo and Tulsa, Oklahoma City and Dallas, Dallas and Tulsa, and Dallas and Fort Worth. The company began charter and intrastate operations in Oklahoma in June, 1944, soon after incorporation.

Pioneer Adds Mileage—Pioneer (formerly Eastern) was granted 331 additional route miles, bringing its AM 44 total to 1,534 miles. Routes—between Houston and Dallas and between Dallas and Midland-Odessa, Tex., were authorized.

In a separate decision, CAB extended Pioneer's certificate to Nov. 14, 1949, and permitted the carrier to institute shuttle operations between any two points on its route, provided no overlap service is maintained between points not consistently served on

its certificate Aviation Enterprise and Central also will have shuttle privileges.

American was given a new AM 4 intermediate stop at Midland-Odessa and Chicago to Southern a new AM 53 intermediate point at Beaumont-Port Arthur, Tex.

Southwest Solves Landing Fee Problem

Federal law says airports must accept all aircraft regardless of size instead of fixed fee.

A major headache of the nation's expanding feeder air transport industry—airport landing charges—may be alleviated appreciably by the pioneering of California's Southwest Airways Co.

The company's inauguration of service (Aviation News, Dec. 2) between Los Angeles and San Francisco, a route which will be extended early in 1947 to Modified, Ore., was attended by a nationwide publicity of airport fees.

Southwest thus far has been able to "tail" airport operations on adoption of a landing charge of two percent of the passenger, freight and express revenues generated in the airport area for the feeder company.

Role in Effect—Agreements between the carrier and the airports it serves do not exceed passengers departing from a given point under

a standing ticket sold elsewhere on chargeable against completion of company revenue generated at that point.

The two percent agreement has been offered at Los Angeles, San Francisco, Ventura, Santa Barbara, San Luis Obispo, Sacramento, and half a dozen other airports served by the initial service. Municipalities are in on with seven other California fields and Modified.

Offer Accepted—The two percent offer was made and Douglas carried to San Francisco Public Utilities Commission, the city's rate fixing agency, a proposal to accept it for Southwest under a special rate category for feeder airline.

San Francisco's favorable decision gave Southwest a valuable new step in subsequent negotiations with other airports explaining the arrangement and suggesting local acceptance. Conference followed.

John H. Casady, president of the feeder line, feels that an solution to the fee problem leads the way for smaller carriers, but one aspect may bring representatives. Southwest has joined Air Transport Association. And ATA has adopted a standard airport lease agreement that no airport charges shall be made as a basis more favorable to one carrier than another.

ACL Will Shun Cargo Rate War

Airborne Cargo Lines has refused to participate in cargo rate wars and intends to pursue the same policy in the future even if it means continued poor utilization of equipment. J. E. Rogers, president, testified at CAB's air freight hearing last week.

Tariffs quoted by Airborne (now based at Midville, N. J.) have been as a parity with those offered by United Air Lines during recent months in Rogers' decision.

"We are," he said, "building our air freight line along solid business principles, anticipating that the shipping public will be willing to pay a fair rate for a competent service."

Up to the present, Rogers continued, Airborne has not flown sufficient ton miles to show a profit due to difficulties in securing return loads. The problem is being overcome by setting up representative in each territory and by the company has refused to trans-

port passengers even though revenue was lost, Rogers said, asking that freight and passenger operations are essentially foreign to each other.

First applicant to present its case after the air freight hearing shifted from Port Worth to Washington, Airborne proposed using C-47s on hand to fly 7,030,390 revenue ton miles between New York and St. Louis during its first year of certificated operations. Seven planes would be used, including two in reserve.

Airborne flew 552,000 ton miles between Apr. 15, when operations began, and Nov. 30. The carrier's sales currently range upward from 17.3 cents a ton mile.

Post Office Backs All American Flea

The Post Office Department has recommended to CAB that the Board make this double All American Aviation's mileage and permit that carrier to provide passenger service as well as the mail pickup for which it is not usually known.

Signaled by Carl Sullivan, Second Assistant Postmaster General, the letter proposed extensive standards to All American's certificate, covering points applied for by the operator in three area cases on which hearings were completed before the letter was written.

Southwestern, Great Lakes and Middle Atlantic. The first of these has been argued and submitted to the Board for decision. The second is awaiting oral argument, an examiner's report having been issued. The third is ready for examination.

Feeder Service—The Depart-

ment's recommendation followed a Postal survey of All American's operations and need for additional service in the area it serves. The Department told the Board that north of the Postal Service require extension of AM and certain new routes for which the carrier has applied. These followed the recommendation that All American be given full opportunity to develop non-mail revenues as a means of reducing cost of the mail service through authorization of passenger service where required by public convenience and necessity.

Favorable Board action would give All American a system extending east and west between New York and Cincinnati and Cleveland, Ohio, and north and south between Buffalo, N. Y., and Hancock, Va., and Washington, D. C. Extensions are that the carrier, if granted, would board the carrier's route mileage from 1,524 to 1,731, and daily scheduled mileage from 6,088 to 13,894.

Proposed Routes—In the Southwestern area, the Department proposed a Cincinnati-Boston route, covering 24 intermediate points in eastern Kentucky, southern West Virginia and western Virginia. Meanwhile, extension, connecting with All American's present system at Cincinnati and at Huntington and Charleston, W. Va.

Pittsburgh-Cleveland and Pittsburgh-Cincinnati routes were recommended in the Great Lakes area, the former via 11 intermediate points and the latter via Columbus and 23 other intermediate points mostly in southeastern Ohio.

In the Middle Atlantic area, the suggestion was made that Washington-Buffalo be designated an extension of Route 50-43. The ex-

tension would give direct air service to four additional Western New York points.

A Washington-New York extension of All American's 40-R, the survey showed, would provide trunk connections now available at Washington and give service to 34 additional cities served by ground transportation. The Department also proposed for the Middle Atlantic area a Philadelphia-New York route via 38 intermediate points in eastern and southern New Jersey, a Philadelphia-Washington route via the Del-Mar-Wa peninsula, and a Pittsburgh-Washington route via eight intermediate points.

AA Uses Jato

The DC-4 on American Airlines' Contract Air Cargo Division, made the first successful commercial takeoff at Mexico City last week with ten tons of business bound shipping for New York City.

The four Jato units under the wings were ignited after takeoff had attained a speed of 150 mph on the runway, 1,000 ft. from its starting point. The plane was airborne at 600 ft. Jato, made by Aerojet Engineering Corp. of Azusa, Calif., added 1,500 hp to the regular 3,000 horsepower.

Mexico City's Central Airport is at an altitude of 7,200 ft., and tests were made for two days before the final takeoff. American climbed the flight, which was to pass over New Orleans, Atlanta and Washington and travel 1,800 mi., at an average the heavier 3,000 m. commercial cargo in aviation history.



Southwest Trimmer—Here are two devices that enabled Southwest Airlines to reduce time on airport stops to 3½ to 4 min. on a proving run flight over its Los Angeles-San Francisco route. Passengers disembark at left in fast of its kind ever installed in a DC-3. Covered doors, here a headrest, fold by side of door when closed and locked for flight. Through doorway (right) may be seen baggage racks for passengers, who handle their own hand baggage. Also, after sales baggage compartment has been modified for storage of all baggage and mail which may be handled between terminals. Cabin ceiling has five loudspeakers for radio programs or pilot's use.



DC-6 MAKES AIRLINE DEBUT

The new Douglas DC-6, two years of which are shown above, made its first public appearance recently when deliveries started to American and

United Airlines. Preparing testing, the planes will bear modified MX lineages. They are to be ready early next year. (Aviation News, Dec. 2).

Plane vs. Steamer to Honolulu

With the recent slump in trans-Pacific air travel, most trans-Pacific airlines are attached to Pan American Airways system's daily service to Honolulu from both Los Angeles and San Francisco.

It seems that by mid-1947 the California-Honolulu route should offer a positive demonstration of the degree to which passenger air commerce will intrude upon the business of a surface carrier.

By next spring Pan American should be fully into its operation of DC-4s on this route. Space for 35 passengers per flight will be available. On the basis of 14 round trips per week out of San Francisco and Los Angeles, this represents a potential business of 4,214 one-way fares per month.

This potential will be in effect while Matson Navigation Co. still is limited in service to the capacity of the Matsons, now operating and averaging 560 passengers per one-way trip—a total of 2,340 one-way fares per month on the ship's schedule of two round trips monthly.

On this showing, Pan American will be offering monthly 1,904 seats above the current capacity of the surface carrier.

It is true that this condition will not persist.

By mid-year Matson should have back its service to the West Coast and Manzanillo. Operating with the Matsons they will provide (on the basis of pre-war service) five round trips per month and potential space for 6,000 passengers a month.

At this time as great importance can be attached to the fact that Pan American is operating 4,214 seats per month on its Honolulu run against Matson's 2,340. Matson is booked solid into next March, and much of Pan American's Hawaiian business must be considered as surface carrier overflow rather than in the light of competitively generated business.

However, when Matson is able to offer accommodations for 6,000 passengers per month a true and interesting result of the ability of air transportation to capture surface trade on a competitive basis should be seen.

By next summer, or early fall, the California-Honolulu transport picture probably will show aviation groups offering a combined total of seats equal to or exceeding that offered by the steamship company. In the near future in addition to Pan American will be United Air Lines and possibly a third scheduled carrier if CAB awards the new Los Angeles-Honolulu certificate now under consideration.

Should current air and steamship fares continue through next year competition will be on levels lower than past seasons. Pan American's present California-Honolulu fare is \$224.25 one way and \$402.50 round trip, including tax. Matson's steamship fares range from \$132.25 to \$264.75 one way with no discount for round trip.

Thus the California-Hawaii route promises to be an excellent laboratory for a descriptive study of the extent to which air carriers can be expected to encroach upon a specialized segment of surface transportation. Both air transport and steam navigation are watching closely.

More News for Operators

Aviation News with this issue changes the name of its Private Flying section to Fixed Base Operations, and makes additional space available for more news in this field. From its beginning three years ago this publication has been the only news magazine in the field to devote an entire department to private flying and fixed base operations in every edition. We have always had faith in this vital phase of aviation.

Harry Maxwell, executive director of National Aviation Trades Association, estimates that there are now some 4,000 enterprises in the category of aviation trades. The number, up until a few weeks ago at least, has been increasing. As in any such business, there will be some bookkeepers. But the fact remains that this important industry, representing the foundation of private aviation, can hardly be over-emphasized.

The improved and expanded department will carry the latest news, news interpretation and forecasts of vital interest to fixed base operations, with special emphasis on sales, service, instruction and airports. We pledge renewed support not only to individual operators, but associations such as the National Aviation Trades Association, Aeronautical Training Society, United Pilots and Mechanics Association, Aircraft Owners & Pilots Association, and the Personal Aircraft Council.

In reiterating its faith in grassroots aviation, the News continues without sacrifice of space or attention to other departments of Transport, Special Air Services, Production, Finance, latest Headline News stories up front, and the two exclusive and well read feature features.

Speedy Action by the Airlines

It was only a few months ago that the entire air transport industry, with a few minor exceptions, was charging full fares for children. The practice was beginning to draw fire from competing surface carriers in their advertising, and growling from parents who had been enticed to the airlines from other transportation.

The situation has changed rapidly, however. Every domestic airline except Eastern and National has put half fares into effect, for his spirit in CAB is intention is to do so. This includes the new line, Southwest Airways. Although some industry opposition to the reductions was expressed a few weeks ago, the recent lifting off of passenger travel eases the seat shortage and should be instrumental in increasing family business if the individual lanes and the Air Transport Association follow through with a proper protection campaign.

The rapidly with which the air carriers have changed policy in this particular case is gratifying to every friend of aviation. It could not have been duplicated in any other field of transportation, and is another proof that despite increased public criticism the airlines have met, they are still flexible enough to decide upon and put into effect quickly important improvements for the public.

ROBERT H. WOOD

The Collins 180-1 Aircraft Radio

Reliable Aircraft Communication for Commercial and Executive Planes

The Collins 180-1 Aircraft Radio

Commercial editions and owners of executive type planes have found that the Collins 180-1 gives them the dependable long range communication they want. They are able to establish and maintain face contact with ground stations, even under adverse conditions.

The 180-1 delivers more than 100 watts of power on any of twenty crystal controlled frequencies. The receiver section, all superheterodyne design also has twenty crystal controlled frequencies. Frequency range is 2.3-13.8 mc. after the equipment has been primed to desired channels, all frequency selection is automatic. Remote control is provided.

A single 1½ ATR unit cabinet contains the

transmitter, receiver, and dynamotor power supply. The receiver operates directly from the 14 volt 6-c power source. Weight, including shock-mount, is 66 pounds.

Other models:

The 180-2 includes CW facilities.

The 180-3 includes CW facilities and has a frequency range of 2.7 to 18.0 mc/skips.

The 180B-1 automatic loading unit efficiently transfers the power output from an 180 to any standard commercial fixed antenna. Remotely controlled, powered operation for two channels is provided. Nominal input impedance is 50 ohms. Weight 12 pounds. Size 12" x 5, 1½" x 18½" x 4

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Units of the compass-controlled directional gyro-scope system. Instruments in foreground are a remotely operated compass and a new-type small directional gyroscope. Mr. Lynch is pointing to a larger gyro-instrument now obsolete.

MORE FREEDOM IN FLIGHT

THESE three G-E aircraft-instrument engineers, Messrs. Savage, Lynch, and Princi, were prominent in the development of the new compass-controlled directional gyroscope shown in the foreground. This is the first directional gyro that functions as if it had universal freedom of motion. It is not disturbed by sharp dives, spins, rolls, or other acrobatics. Teamed with the compass it becomes part of an electric instrument system that gives an airplane sustained and accurate directional heading in autopiloted flights. The system is so designed that errors usually occurring when compass and gyro are separate are automatically corrected. However, both can work separately if necessary.

In a plane, the compass is located near the wing tips and is electrically connected with the gyro which is considerably smaller than earlier models, and weighs less than the one now in general use. Unaffected by the earth's rotation, it points a steady hand to the set course, and frees the pilot from another routine task. Other electric instruments are being constantly designed by General Electric—including those for jet-propelled planes. Our engineers tackled many "can't-be-done" tasks during the war years. They'll be glad to help you with yours in the years to come. Apparatus Dept., General Electric Company, Schenectady 5, N. Y.



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